

AKTIVITAS ANTIMALARIA EKSTRAK ETANOL KULIT BUAH *GARCINIA MANGOSTANA* LINN. TERHADAP *PLASMODIUM FALCIPARUM*

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ABSTRACT

Antimalarial Activity of Ethanol Extract of *Garcinia mangostana* Linn. Pericarp on *Plasmodium falciparum*

This research was conducted to investigate antimalarial activity of ethanol extract of *Garcinia mangostana* Linn. pericarp. Ethanol 50% extract, ethanol 60% extract, ethanol 70% extract, ethanol 80% extract, and ethanol 96% extract of this plant were tested *in vitro* against *Plasmodium falciparum* strain 3D7. All of the ethanol extracts showed complete parasite growth inhibition at concentration of 100 µg/mL within 48 hours of incubation period. The percentages of growth inhibition induced by ethanol 50% extract, ethanol 60% extract, ethanol 70% extract, ethanol 80% extract, and ethanol 96% extract were found to be 29.10%; 34.23%; 30.64%; 41.51%; and 51.09% respectively at a concentration of 10 µg/mL. The highest activity was found in ethanol 96% extract with IC₅₀ value of 8.53 µg/mL. The other extracts showed very weak antimalarial effects with IC₅₀ value between 10 µg/mL and 100 µg/mL.

Keywords : *Garcinia mangostana* Linn., ethanol extract, *Plasmodium falciparum*, antimalarial activity